Listing of claims

1. (original) An apparatus comprising:

a plurality of micro-electromechanical (MEM) devices, each MEM device having a plurality of different states based on a charge induced thereon;

a charge source to induce the charge thereon such that the plurality of MEM devices each enter one of the different states thereof; and,

at least one discharge path for the plurality of MEM devices along which the charge induced thereon is dischargeable.

2. (original) The apparatus of claim 1, wherein the charge source is a focused beam source.

3. (currently amended) The apparatus of claim 2, wherein each MEM device has more than two different states based on a number of ~~secondary~~ electrons emitted therefrom, and ~~the~~ a focused beam is scanned individually over the plurality of MEM devices to cause the ~~secondary~~ electrons to be emitted from the plurality of MEM devices such that each MEM device enters one of the different states thereof.

4. (currently amended) The apparatus of claim 2, wherein each MEM device has more than two different states based on a number of primary electrons placed thereon, and ~~the~~ a focused beam is scanned individually over the plurality of MEM devices to emit the primary electrons onto the plurality of MEM devices such that each MEM device enters one of the different states thereof.

5. (original) The apparatus of claim 2, further comprising:

a cathode-ray tube within which the focused beam source is situated; and,

a plate situated within the cathode-ray tube and against which the plurality of MEM devices are situated.

6. (original) The apparatus of claim 5, wherein the cathode-ray tube has a tapered end and a wide end, the plate situated at the wide end, and the focused beam source situated at the tapered end, the plurality of MEM devices disposed towards the focused beam source.

7. (currently amended) The apparatus of claim 5, wherein ~~the~~ a focused beam scanned individually over the plurality of MEM devices induces the charge on each MEM device and an opposite mirror charge on the plate, such that an attractive force is developed between the MEM device and the plate.

8. (original) The apparatus of claim 5, wherein the plurality of MEM devices comprises a plurality of mirror-type MEM devices, each MEM device capable of controlling light intensity reflected thereby based on an angle of reflection of a mirror of the MEM device.

9. (original) The apparatus of claim 8, wherein the mirror of each MEM device of the plurality of mirror-type MEM devices is a hinged mirror, the MEM device having a default state in which the hinged mirror is parallel to the plate, such that the charge induced on the MEM device causes the hinged mirror to tilt relative to the plate to enter one of one or more different states other than the default state.

10. (original) The apparatus of claim 8, wherein the mirror of each MEM device of the plurality of mirror-type MEM devices is a hinged mirror, the MEM device having a default state in which the hinged mirror is parallel to the plate, such that the charge induced on the MEM

device causes the hinged mirror to tilt towards the plate to enter one of one or more different states other than the default state.

11. (original) The apparatus of claim 2, wherein the focused beam source is a focused primary beam source.

12. (original) The apparatus of claim 2, wherein the focused beam source is a focused electron beam source.

13. (original) The apparatus of claim 12, wherein the plurality of MEM devices comprises a plurality of mirror-type MEM devices, each MEM device capable of controlling light intensity reflected thereby based on an angle of reflection of a mirror of the MEM device.

14. (currently amended) The apparatus of claim 13, wherein the mirror of each MEM device of the plurality of mirror-type MEM devices is a hinged mirror, the MEM device having a default state in which the hinged mirror is in one state, such that the charge induced on the MEM device causes the hinged mirror to tilt relative to the plate to enter one of ~~one a~~ the plurality of different states other than the default state.

15. (original) The apparatus of claim 1, wherein the at least one discharge path comprises at least one of: a resistive element, a plate, and a switch.

16. (original) An apparatus comprising:

a plurality of tiltable micro-electromechanical (MEM) devices, each MEM device having a plurality of different states based on a charge induced thereon; and,

a focused beam source to scan a focused beam individually over the plurality of MEM devices to induce the charge thereon such that the plurality of MEM devices each enter one of the different states thereof.

17. (original) The apparatus of claim 16, wherein the plurality of tiltable MEM devices each tilt based on the charge thereon, and return to a default state upon the charge discharging therefrom automatically.

18. (currently amended) The apparatus of claim 16, wherein each MEM device has the plurality of different states based on a number of ~~secondary~~ electrons emitted therefrom, and the focused beam is scanned individually over the plurality of MEM devices to cause the ~~secondary~~ electrons to be emitted from the plurality of MEM devices such that each MEM device enters one of the different states thereof.

19. (original) The apparatus of claim 16, further comprising:

a cathode-ray tube within which the focused beam source is situated; and,

a plate situated within the cathode-ray tube and against which the plurality of MEM devices are situated.

20. (original) The apparatus of claim 19, wherein the focused beam scanned individually over the plurality of MEM devices induces the charge on each MEM device and an opposite mirror charge on the plate, such that an attractive force is developed between the MEM device and the plate.

21. (original) The apparatus of claim 19,wherein the plurality of MEM devices comprises a plurality of mirror-type MEM devices, each MEM device capable of controlling light intensity reflected thereby based on an angle of reflection of a mirror of the MEM device.

22. (original) An apparatus comprising:

a plurality of delay-tilt micro-electromechanical (MEM) devices, each MEM device tilting upon a charge being induced thereon, for a length of time corresponding to an amount of the charge, and returning to a default state upon the charging discharging therefrom automatically; and,

a focused beam source to scan a focused beam individually over the plurality of MEM devices to induce the charge thereon such that the plurality of MEM devices each enter one of the different states thereof.

23. (currently amended) The apparatus of claim 22, wherein each MEM device has more than two different states based on a number of ~~secondary~~ electrons emitted therefrom, and the focused beam is scanned individually over the plurality of MEM devices to cause the ~~secondary~~ electrons to be emitted from the plurality of MEM devices such that each MEM device enters one of the different states thereof.

24. (original) The apparatus of claim 22, further comprising:

a cathode-ray tube within which the focused beam source is situated; and,

a plate situated within the cathode-ray tube and against which the plurality of MEM devices are situated.

25. (original) The apparatus of claim 24, wherein the focused beam scanned individually over the plurality of MEM devices induces the charge on each MEM device and an opposite mirror

charge on the plate, such that an attractive force is developed between the MEM device and the plate.

26. (original) The apparatus of claim 24, wherein the plurality of MEM devices comprises a plurality of mirror-type MEM devices, each MEM device capable of controlling light intensity reflected thereby based on an angle of reflection of a mirror of the MEM device.

27. (original) The apparatus of claim 22, wherein the focused beam source is a focused primary beam source.

28. (original) The apparatus of claim 22, wherein the focused beam source is a focused electron beam source.

29. (currently amended) A display device comprising:

a plurality of micro-electromechanical (MEM) devices, each MEM device having more than two display states based on ~~secondary~~ electrons emitted from the MEM device;

a focused beam source to scan a focused beam individually over the plurality of MEM devices and cause the ~~secondary~~ electrons to be emitted therefrom in accordance with display information such that the plurality of MEM devices each enter one of the display states thereof; and,

at least one light source to project light towards the plurality of MEM devices, the plurality of MEM devices reflecting the light to result in a displayed image.

30. (currently amended) The display device of claim 29, wherein each MEM device has the plurality of different display states based on a number of ~~secondary~~ electrons emitted therefrom, and the focused beam is scanned individually over the plurality of MEM devices to cause the

~~secondary~~ electrons to be emitted from the plurality of MEM devices such that each MEM device enters one of the different display states thereof.

31. (original) The display device of claim 29, further comprising:

a cathode-ray tube within which the focused beam source is situated; and,

a plate situated within the cathode-ray tube and against which the plurality of MEM devices are situated.

32. (original) The display device of claim 31, wherein the focused beam scanned individually over the plurality of MEM devices induces the charge on each MEM device and an opposite mirror charge on the plate, such that an attractive force is developed between the MEM device and the plate.

33. (original) The display device of claim 31, wherein the cathode-ray tube has a tapered end and a wide end, the plate situated at the wide end, and the focused beam source situated at the tapered end, the plurality of MEM devices disposed towards the focused beam source.

34. (original) The display device of claim 33, wherein the plate has a first side deposed towards the focused beam source, and against which the plurality of MEM devices are situated, and a second side opposite to the first side.

35. (original) The display device of claim 34, wherein the at least one light source is to project the light towards the second side of the plate.

36. (original) The display device of claim 31, wherein the plurality of MEM devices comprises a plurality of mirror-type MEM devices, each MEM device capable of controlling light intensity reflected thereby based on an angle of reflection of a mirror of the MEM device.

37. (original) The display device of claim 36, wherein the mirror of each MEM device of the plurality of mirror-type MEM devices is a hinged mirror, the MEM device having a default display state in which the hinged mirror is parallel to the plate, such that inducement of the charge on the MEM device causes the hinged mirror to tilt relative to the plate to enter one of one or more different display states other than the default display state.

38. (original) The display device of claim 29, wherein the focused beam source is a focused electron beam source.

39. (currently amended) A display device comprising:

means for emitting ~~secondary~~ electrons to enter one of a plurality of different display states;

means for scanning a focused beam over the means for emitting ~~secondary~~ electrons to cause the ~~secondary~~ electrons to be emitted therefrom in accordance with display information such that the means for emitting ~~secondary~~ electrons enters one of the plurality of display states thereof; and,

means for projecting light towards the means for emitting ~~secondary~~ electrons, the means for emitting ~~secondary~~ electrons reflecting the light to result in a displayed image.

40. (currently amended) The display device of claim 39, wherein the means for emitting ~~secondary~~ electrons is capable of controlling light intensity reflected thereby based on an angle of reflection thereof.

41. (currently amended) A light valve comprising:

a support; and,

a reflective membrane substantially situated on an end of the support, the reflective membrane capable of differently reflecting light in accordance with ~~secondary~~ electrons emitted therefrom.

42. (original) The light valve of claim 41, wherein the reflective membrane has a default position at least substantially perpendicular to the support, such that the reflective membrane is said to be in one of an off state and not reflecting light and an on state and reflecting light.

43. (original) The light valve of claim 42, wherein the reflective membrane further has an activated position non-perpendicular to the support, such that the reflective membrane is said to be in the other of the off state and the on state.

44. (original) The light valve of claim 42, wherein the reflective membrane further has a plurality of activated positions at different angles to the support, such that in each activated position the reflective membrane is said to be in an on state and is reflecting a different intensity of light.

45. (currently amended) The light valve of claim 41, wherein the reflective membrane tilts on the support in accordance with the ~~secondary~~ electrons being emitted therefrom to differently reflect the light.

46. (currently amended) The light valve of claim 41, wherein the support tilts in accordance with the ~~secondary~~ electrons being emitted therefrom to differently reflect the light.

47. (original) The light valve of claim 45, wherein the reflective membrane is a hinged mirror.

48. (original) The light valve of claim 41, wherein the light valve corresponds to a pixel of a display device.

49. (original) The light valve of claim 41, wherein the light valve corresponds to a sub-pixel of a pixel of a display device.

50. (original) The light valve of claim 41, wherein the light valve is a micro-electromechanical (MEM) device.

51. (currently amended) A display element for a display device comprising:

a support; and,

means for rotating in relation to the support to differently reflect projected light in accordance with ~~secondary~~ electrons emitted ~~therefrom~~.

52. (original) The display element of claim 51, wherein the display element corresponds to a pixel of the display device.

53. (original) The display element of claim 51, wherein the display element corresponds to a sub-pixel of a pixel of the display device.

54. (original) The display element of claim 51, wherein the display element is a micro-electromechanical (MEM) device.

55. (currently amended) A method comprising:

projecting at least one light source towards a plurality of micro-electromechanical (MEM) devices to result in a displayed image; and,

scanning a focused beam individually over the plurality of MEM devices to cause ~~secondary~~ electrons to be emitted therefrom in accordance with display information, such that the plurality of MEM devices each enter one of more than two display states.

56. (original) The method of claim 55, further comprising repeating scanning the focused beam individually over the plurality of MEM devices for each frame of a plurality of frames.

57. (original) The method of claim 56, further comprising, after each frame of the plurality of frames, setting the plurality of MEM devices each to a default state of the plurality of display states.

58. (currently amended) A method comprising:

providing a cathode-ray tube having a tapered end and a wide end;

disposing a focused beam source at the tapered end of the cathode-ray tube;

disposing a plate at the wide end of the cathode-ray tube;

disposing a plurality of micro-electromechanical (MEM) devices against the plate, the plurality of MEM devices capable of having ~~secondary~~ electrons emitted therefrom in response to being individually scanned by the focused beam source to each enter one of more than two different display states, and capable of reflecting light to result in a displayed image in accordance with a display state entered; and,

situating at least one light source capable of projecting light towards the plurality of MEM devices that is reflected thereby.

59. (original) The method of claim 58, wherein disposing the focused beam source comprises disposing a focused electron beam source at the tapered end of the cathode-ray tube.

60. (original) The method of claim 58, wherein disposing the plurality of MEM devices against the plate comprises disposing a plurality of mirror-type MEM devices against the plate, each MEM device capable of controlling light intensity reflected thereby based on an angle of reflection of a mirror of the MEM device.

61. (original) The method of claim 60, wherein disposing the plurality of mirror-type MEM devices against the plate comprises disposing a plurality of MEM devices having hinged mirrors, the hinged mirror of each MEM device capable of tilting away from and towards the plate.